



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,241	08/31/2000	Chung Ho	99PS011/KE	3106

7590

06/28/2004

ROCKWELL COLLINS, INC.

Attention: Kyle Eppele

M/S 124-323

400 Collins Rd. NE

Cedar Rapids, IA 52498

EXAMINER

LEE, MICHAEL

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 06/28/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,241

Applicant(s)

HO ET AL.

Examiner

M. Lee

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffin et al. (5,768,647).

Regarding claim 1, Coffin discloses a positioning control assembly showing an actuator (16), an indicator plate (32,34), a sensor (80), and a controller (100). The position of assembly is controlled by the feedback loop as shown in Figure 6, which is the same as the movement control as claimed. However, Coffin does not specify that the assembly is a display assembly as claimed. Instead, a camera assembly is being controlled. In any event, it is understood that the positioning control assembly in Coffin could be used to control the position of any device other than a camera because the base member 50 could be used to support or carry anything that could fit into it. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the camera assembly with a display assembly to perform the well known functions as claimed. The replacement would have considered an obvious design choice.

Regarding claim 2, note the servo motor 16.

Art Unit: 2614

Regarding claim 3, Coffin does not specify the linear electric motor as claimed. The examiner takes Official Notice that rotary electric motor and linear electric motor can be used interchangeable with each other since they both are intended to provide motive force to a movable device. Such change would have considered an obvious design choice. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the rotary motor in Coffin with a linear motor to perform the well known functions as claimed.

Regarding claim 4, Coffin shows a flat disk 32 but does not specify the two inches diameter as claimed. Since the disk diameter in Coffin could be in any size, it would have considered an obvious design choice.

Regarding claim 5, the disk 32 is intended to be metal.

Regarding claim 6, the sensor is an infrared sensor (col. 3, lines 1-6).

Regarding claim 7, Coffin does not specify that the sensor is a mechanical device as claimed. The examiner takes Official Notice that using mechanical sensors such as a switch instead of optical sensors is well known in the art. Mechanical switches are more cost effective than optical sensors since the former require less control circuits. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the optical sensor with a mechanical switch to perform the well known functions as claimed.

Regarding claims 8-12, see the corresponding rejections as set forth above.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Portman (5,811,791) shows a vehicle entertainment system.

Salomom (5,467,106) shows a retractable LCD monitor with mechanical sensor 66.

Sherlock et al. (6,452,155) shows a control system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Lee whose telephone number is **703-305-4743**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John Miller**, can be reached at **703-305-4795**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2614

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to be 'M. Lee', with a stylized, flowing script.

M. Lee
Primary Examiner
Art Unit 2614

June 17, 2004